

### Features

- High Voltage:  $V_{CEO(SUS)} = 300\text{ V min.}$
- Wide Area of Safe Operation
- Designed for use in series regulators, power amplifiers, inverters, deflection circuits, switching regulators, and high voltage bridge amplifiers.
- TO-3 (TO-204AA) Package



### Electrical Characteristics

Parameter	Test Conditions	Symbol	Units	Min.	Max.
Collector-Emitter Sustaining Voltage	$I_C = 0.2\text{ A}; I_B = 0$	$V_{CEO(SUS)}$	V	300	--
Collector-Emitter Sustaining Voltage	$I_C = 0.2\text{ A}; R_{BE} \leq 50\ \Omega$	$V_{CEO(SUS)}$	V	350	--
Emitter-Base Breakdown Voltage	$I_E = 0.02\text{ A}; I_C = 0$	$V_{(BR)EBO}$	V	6	--
Collector-Emitter Saturation Voltage	$I_C = 2\text{ A}; I_B = 0.25\text{ A}$	$V_{CE(SAT)-1}$	V	--	2.5
Collector-Emitter Saturation Voltage	$I_C = 4.5\text{ A}; I_B = 1.125\text{ A}$	$V_{CE(SAT)-2}$	V	--	5.0
Base-Emitter On Voltage	$I_C = 2\text{ A}; V_{CE} = 10\text{ V}$	$V_{BE(on)}$	V	--	3.0
Collector Cutoff Current	$V_{BE} = 375\text{ V}; V_{BE} = -1.5\text{ V}$ $V_{BE} = 300\text{ V}; V_{BE} = -1.5\text{ V}; T_C = 150^\circ\text{C}$	$I_{CEV}$	mA	--	2 3
Collector Cutoff Current	$V_{BE} = 200\text{ V}; I_B = 0$	$I_{CEO}$	mA	--	2
Emitter Cutoff Current	$V_{BE} = 6\text{ V}; I_C = 0$	$I_{ESO}$	mA	--	5
Forward Bias, Second Breakdown Collector Current	$t_p = 1\text{ sec}, V_{CE} = 100\text{ Vdc}$	$I_{S/B}$	A	0.8	--
AC Forward Current Transfer Ratio	$F = 1\text{ KHz}; V_{CE} = 10\text{ Vdc}, I_C = 0.4\text{ A}$	$h_{fe}$		20	--
DC Current Gain	$I_C = 0.4\text{ A}; V_{CE} = 10\text{ V}$	$h_{Fe-1}$		20	80
DC Current Gain	$I_C = 2\text{ A}; V_{CE} = 10\text{ V}$	$h_{Fe-2}$		20	80
DC Current Gain	$I_C = 4.5\text{ A}; V_{CE} = 10\text{ V}$	$h_{Fe-3}$		5	--
Current-Gain - Bandwidth Product	$I_C = 0.2\text{ A}; V_{CE} = 10\text{ V}$	$f_T$	MHz	2	--
Output Capacitance	$I_E = 0; V_{CB} = 10\text{ V}; f_{test} = 1.0\text{ MHz}$	$C_{OB}$	pF	--	250

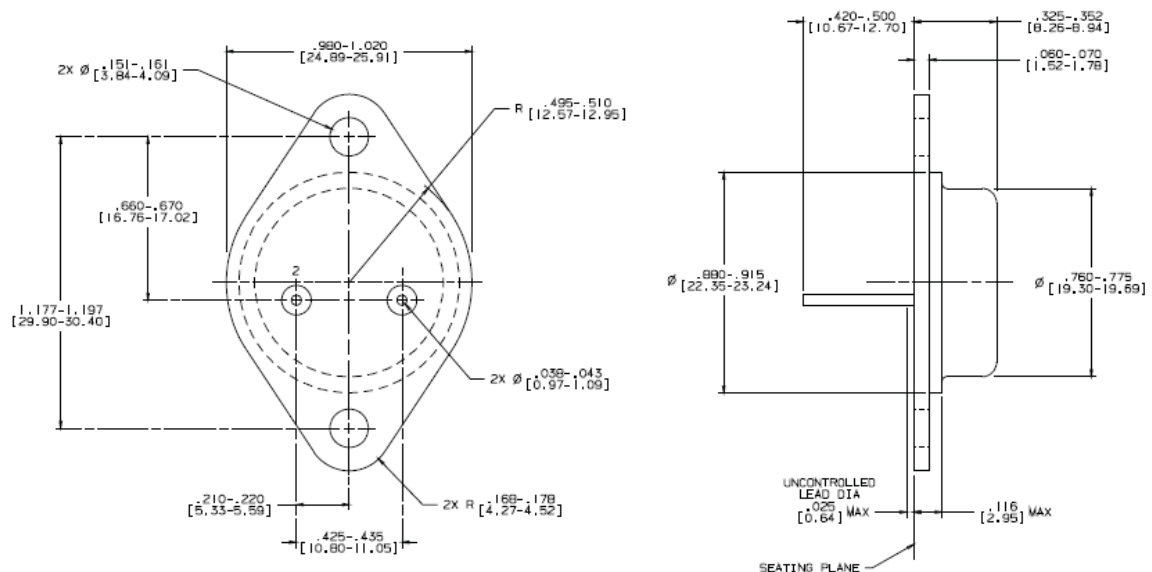
## NPN Power Silicon Transistor

Rev. V1

### Absolute Maximum Ratings

Ratings	Symbol	Value
Collector - Base Voltage	$V_{CBO}$	375 Vdc
Collector - Emitter Voltage ( $R_{BE} < 50 \Omega$ )	$V_{CER(SUS)}$	350 Vdc
Collector - Emitter Voltage	$V_{CEO(SUS)}$	300 Vdc
Emitter - Base Voltage	$V_{EBO}$	6 Vdc
Collector Current - Continuous	$I_C$	5 Adc
Base Current	$I_B$	2 Adc
Collector Power Dissipation	$P_C$	100 W
Junction Temperature	$T_J$	+200°C
Operating & Storage Temperature Range	$T_{OP}, T_{STG}$	-65°C to +200°C

### Outline Drawing



**NOTES:**

1. STANDARD HEADER TYPE SOLID BASE.
2. STANDARD LEAD FINISH PER MIL-M-38510 TYPE X OR EQUIVALENT.
3. LEAD NOT BENT GREATER THAN 15°.
4. DIMENSIONS BASED ON JEDEC STANDARD TO-3 PUBLICATION 95, PA

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